

SEQUENCE LISTING

<110> Berzofsky, Jay A.  
Okazaki, Takahiro

<120> Enhanced HIV-1 Vaccines and Methods for Their Use

<130> 015280-481100US

<140> US 10/551,405  
<141> 2005-09-29

<150> US 60/459,507  
<151> 2003-03-31

<150> WO PCT/US04/09617  
<151> 2004-03-29

<160> 22

<170> PatentIn Ver. 2.1

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<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:variant of  
synthetic sequence motif derived from HIV-1  
reverse transcriptase (RT) catalytic site region,  
immunostimulating peptide

<220>  
<221> MOD\_RES  
<222> (1)  
<223> Xaa = any hydrophobic amino acid

<400> 1  
Xaa Leu Tyr Gln Tyr Met Asp Asp Val  
1 5

<210> 2  
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<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:variant of  
synthetic sequence motif derived from HIV-1  
reverse transcriptase (RT) catalytic site region,  
immunostimulating peptide, RT-2L9V, 2L9V

<400> 2  
Val Leu Tyr Gln Tyr Met Asp Asp Val  
1 5

<210> 3  
 <211> 9  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:variant of  
 synthetic sequence motif derived from HIV-1  
 reverse transcriptase (RT) catalytic site region,  
 immunostimulating peptide, RT-1Y2L9V

<400> 3  
 Tyr Leu Tyr Gln Tyr Met Asp Asp Val  
 1 5

<210> 4  
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 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:variant of  
 synthetic sequence motif derived from HIV-1  
 reverse transcriptase (RT) catalytic site region,  
 immunostimulating peptide

<220>  
 <221> MOD\_RES  
 <222> (1)..(200)  
 <223> Xaa = any amino acid, may be present or absent

<220>  
 <221> MOD\_RES  
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 <223> Xaa = any hydrophobic amino acid

<220>  
 <221> MOD\_RES  
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 <223> Xaa = any amino acid, may be present or absent

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 Xaa  
 1 5 10 15

Xaa  
 20 25 30

Xaa  
 35 40 45

Xaa  
 50 55 60

Xaa  
 65 70 75 80

Xaa  
 85 90 95

Xaa  
100 105 110

Xaa  
115 120 125

Xaa  
130 135 140

Xaa  
145 150 155 160

Xaa  
165 170 175

Xaa  
180 185 190

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Leu Tyr Gln Tyr Met Asp Asp  
195 200 205

Val Xaa  
210 215 220

Xaa  
225 230 235 240

Xaa  
245 250 255

Xaa  
260 265 270

Xaa  
275 280 285

Xaa  
290 295 300

Xaa  
305 310 315 320

Xaa  
325 330 335

Xaa  
340 345 350

Xaa  
355 360 365

Xaa  
370 375 380

Xaa  
385 390 395 400

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
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<210> 5  
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 <212> PRT  
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<220>  
 <223> Description of Artificial Sequence:variant of  
 synthetic sequence motif derived from HIV-1  
 reverse transcriptase (RT) catalytic site region,  
 immunostimulating peptide

<220>  
 <221> MOD\_RES  
 <222> (1)..(200)  
 <223> Xaa = any amino acid, may be present or absent

<220>  
 <221> MOD\_RES  
 <222> (210)..(409)  
 <223> Xaa = any amino acid, may be present or absent

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 Xaa  
 1 5 10 15

Xaa  
 20 25 30

Xaa  
 35 40 45

Xaa  
 50 55 60

Xaa  
 65 70 75 80

Xaa  
 85 90 95

Xaa  
 100 105 110

Xaa  
 115 120 125

Xaa  
 130 135 140

Xaa  
 145 150 155 160

Xaa  
 165 170 175

Xaa  
 180 185 190

Xaa Xaa Xaa Xaa Xaa Xaa Val Leu Tyr Gln Tyr Met Asp Asp  
 195 200 205

Val	Xaa														
210															220
Xaa															
225															240
Xaa															
245															255
Xaa															
260															270
Xaa															
275															285
Xaa															
290															300
Xaa															
305															320
Xaa															
325															335
Xaa															
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Xaa															
355															365
Xaa															
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 synthetic sequence motif derived from HIV-1  
 reverse transcriptase (RT) catalytic site region,  
 immunostimulating peptide  
  
 <220>  
 <221> MOD\_RES  
 <222> (1)..(200)  
 <223> Xaa = any amino acid, may be present or absent  
  
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 <223> Xaa = any amino acid, may be present or absent

<400> 6

Xaa  
1 5 10 15

Xaa  
20 25 30

Xaa  
35 40 45

Xaa  
50 55 60

Xaa  
65 70 75 80

Xaa  
85 90 95

Xaa  
100 105 110

Xaa  
115 120 125

Xaa  
130 135 140

Xaa  
145 150 155 160

Xaa  
165 170 175

Xaa  
180 185 190

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Tyr Leu Tyr Gln Tyr Met Asp Asp  
195 200 205

Val Xaa  
210 215 220

Xaa  
225 230 235 240

Xaa  
245 250 255

Xaa  
260 265 270

Xaa  
275 280 285

Xaa  
290 295 300

Xaa  
305 310 315 320

Xaa  
325 330 335

Xaa  
340 345 350

Xaa  
355 360 365

Xaa  
370 375 380

Xaa  
385 390 395 400

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
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<210> 7  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:HIV-1 reverse transcriptase (RT) catalytic site region sequence motif, wild-type RT (179-187), RT-WT

<400> 7  
Val Ile Tyr Gln Tyr Met Asp Asp Leu  
1 5

<210> 8  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:variant of synthetic sequence motif derived from HIV-1 reverse transcriptase (RT) catalytic site region, RT-1Y immunostimulating peptide

<400> 8  
Tyr Ile Tyr Gln Tyr Met Asp Asp Leu  
1 5

<210> 9  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:HIV-gag peptide, gag (p17) (77-85), p17-WT

<400> 9  
Ser Leu Tyr Asn Thr Val Ala Thr Leu  
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<210> 10  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Flu matrix peptide 58-66, FMP, Flu-MP (58-66)

<400> 10  
Gly Ile Leu Gly Phe Val Phe Thr Leu  
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<210> 11  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:variant of synthetic sequence motif derived from HIV-1 reverse transcriptase (RT) catalytic site region immunostimulating peptide

<220>  
<221> MOD\_RES  
<222> (1)  
<223> Xaa = any hydrophobic amino acid, preferably Val

<400> 11  
Xaa Leu Tyr Gln Tyr Met Asp Asp Val  
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<210> 12  
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<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:RT (179-187)-WT alanine substituted peptide 1A

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Ala Ile Tyr Gln Tyr Met Asp Asp Leu  
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<210> 13  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:RT (179-187)-WT  
alanine substituted peptide 2A

<400> 13  
Val Ala Tyr Gln Tyr Met Asp Asp Leu  
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<210> 14  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:RT (179-187)-WT  
alanine substituted peptide 3A

<400> 14  
Val Ile Ala Gln Tyr Met Asp Asp Leu  
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<210> 15  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:RT (179-187)-WT  
alanine substituted peptide 4A

<400> 15  
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<210> 16  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:RT (179-187)-WT  
alanine substituted peptide 5A

<400> 16  
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<210> 17  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:RT (179-187)-WT  
alanine substituted peptide 6A

<400> 17  
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<210> 18  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:RT (179-187)-WT  
alanine substituted peptide 7A

<400> 18  
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<210> 19  
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<220>  
<223> Description of Artificial Sequence:RT (179-187)-WT  
alanine substituted peptide 8A

<400> 19  
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<210> 20  
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<220>  
<223> Description of Artificial Sequence:RT (179-187)-WT  
alanine substituted peptide 9A

<400> 20  
Val Ile Tyr Gln Tyr Met Asp Asp Ala  
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<210> 21  
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<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:RT (179-187)-WT  
substituted peptide 2L

<400> 21  
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<210> 22  
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<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:RT (179-187)-WT  
substituted peptide 9V

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